

## ABSTRACT

A position sensor device for determining a position of a reciprocating object, comprising at least one magnetically encoded region fixed on a reciprocating object, comprising at least one magnetic field detector, and comprising a position determining unit. The magnetic field detector is adapted to detect a signal generated by the magnetically encoded region when the magnetically encoded region reciprocating with the reciprocating object passes a surrounding area of the magnetically encoded region. The position determining unit is adapted to determine a position of a reciprocating object based on the detected magnetic signal.